SOME EFFECTS OF COMMUNITY BASED INQUIRY LEARNING SUPPORTED BY NETWORKED TECHNOLOGY

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Learning could be collaborative and inquiry-based (Muukkonen et al., 1999; Korom, 2010; Nagyné, 2010) in knowledge building communities (Hakkarainen, 2003). Instructors could use blog based learning environments for this type of learning. Blogs could be facilitating rich interactions with appropriate instructional planning and guidance. In this learning environment, students' interactions are probably the function of their social networks (see Atkin, 1977), and their attitude towards collaborative inquiry (Elen & Clarebout, 2001) may also influence their involvement in the discourse. When sharing and discussing their writings online, students' perceived collaborative learning (So & Brush, 2008) and sense of community (Halic et al., 2010) could vary greatly. In the present study, we researched the relationship between students' friendship and discussion network, their attitude towards collaborative inquiry, their discursive activity, as well as their perceived online collaborative learning and sense of community. We investigated undergraduate students' (N=119) collaborative inquiry in networked, blog based online learning environments. For the analysis, we used network variables that resulted from social network analysis (Wasserman & Faust, 1994) and variables from questionnaire data. From the friendship network, we calculated normalized degree and betweenness centrality (Freeman, 1979). From the discussion network, we used outdegree, indegree and betweenness centrality (Freeman, 1979). With these variables, we performed path analysis (Chi-square=6,489, df=4, p=.166; RMSEA=.072; CFI=.997; TLI=.929; SRMR=.012). The first results show that students with more friends and higher attitudes towards collaborative inquiry perceive higher levels of collaborative learning. In the case of sense of community, there were three significant, but not too strong effects: attitude towards collaborative inquiry, relative count of friends and activity in interaction networks. The results also show that students with more friends were more active in the discussions. They gave and received more messages from peers compared to others. Students who initiated exchange were more likely to receive comments, so they were more intensely engaged and could benefit more from the collaborative, community-based inquiry learning situations. Also, the attitude towards collaborative inquiry seems to be important in the discussions and in collaborative learning supported by networked, online, technology based learning environments. The mechanisms revealed in this study could contribute to the understanding of the processes of collaborative, community based, networked technology-enhanced inquiry learning, thus helping instruction and research. More investigations are needed though for a clearer picture of the relationships between the target variables.